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HAVERSTOCK & OWENS LLP
162 N WOLFE ROAD
SUNNYVALE, CA 94086

EXAMINER	
PATEL, CHANDRAHAS B	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/091,638	BARDINI ET AL.	
	Examiner	Art Unit	
	Chandrahas Patel	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5,7,12-17,19,20,22-24,28-30,32,33,38-42 and 47-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5, 7, 12-17, 19, 20, 22-24, 28-30, 32, 33, 38-42, 47-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 3/25/2008 have been fully considered but they are not persuasive.

Applicant argues that Ghodrat does not teach a back channel packet for indicating a retransmission flow control to perform. However, examiner disagrees. Ghodrat teaches at Col. 6, lines 16-24 back channel packet for retransmission of errant packets. Applicant argues that Ghodrat does not teach back channel packet that resets transmission of the stream of isochronous data packets. However, examiner disagrees. Ghodrat teaches resetting the isochronous-retry packets from a packet where sequence numbers were missing. Applicant argues that Ghodrat does not teach setting an isochronous channel number field to indicate the isochronous channel used to send an isochronous back channel packet. However, examiner disagrees. Ghodrat teaches selecting isochronous channels for transmission of media streams. Ghodrat teaches streams are set up to support media devices such as cameras, video players, music players etc. This would require different channels for plurality of different devices. Applicant argues that Ghodrat does not teach configuring a transmitting plug for transmitting an isochronous back channel packet over an isochronous channel. However, examiner disagrees. Ghodrat teaches configuring physical layer interface 40 to transmit on a communication medium. This communication medium is isochronous channel as it connects to IEEE 1394 bus which does isochronous communication. The data paths are bidirectional therefore the connection can be used for transmitting and receiving. Applicant argues that Ghodrat does not teach transmitting the isochronous back channel packet from the receiving device over the isochronous back

channel via the transmitting plug. However, examiner disagrees. Ghodrat teaches sending isochronous packets using the link layer transceiver which sends the packets to communication interface 40 for further transmission. Applicant argues that Ghodrat does not teach sending isochronous data packets in non real-time. However, examiner disagrees. Ghodrat teaches sending data in asynchronous manner. The asynchronous communication is done in non-real time.

Applicant argues that Susai does not teach resetting transmission from a specific packet in the stream of data packets. However, examiner disagrees. Susai teaches resuming the transmission from a specific sequence number in the flow. Applicant further argues that Susai is not related to real-time communication. However, Susai is cited to cure deficiencies of Ghodrat. Ghodrat teaches performing real-time communication.

Applicant argues that Dejanovic does not teach a control instruction that instructs the transmitting device to stop transmitting the stream of data packets. However, examiner disagrees. Dejanovic teaches a control instruction that instructs the sending device to stop sending data packets. Applicant further argues that Dejanovic is not related to real-time isochronous communication. However, Dejanovic is cited to cure deficiencies of Ghodrat. Ghodrat teaches performing real-time isochronous communication.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 20, 22, 29, 30, 50, 52, 55-57, 60, 61 are rejected under 35 U.S.C. 102(e) as being anticipated by Ghodrat et al. (USPN 6,717,947).

Regarding claim 20, Ghodrat teaches a method of transmitting flow control and retransmission information **[Abstract]** comprising: a. configuring a transmitting plug on a receiving device for transmitting an isochronous back channel packet over an isochronous channel via the transmitting plug to a transmitting device **[Col. 5, lines 33-39]**; b. determining flow control and retransmission information based on the status of a received isochronous data packet at the receiving device, wherein the received isochronous data packet is one of a stream of isochronous data packets transmitted from the transmitting device to the receiving device, wherein the stream of isochronous data packets is transmitted in non real-time **[Fig. 3, 210, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**; c. packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-67, Col. 6, lines 16-24]**; and d. transmitting the isochronous back channel packet from the receiving device over the isochronous back channel via the transmitting plug **[Col. 7, lines 36-41]**.

Regarding claim 22, Ghodrat teaches the status of the received isochronous data packet indicates a packet transmission error and instructs the transmitting device to reset transmission of the stream of isochronous data packets starting from a specified packet within the stream of isochronous data packets **[Col. 7, lines 36-53, 65-67, – Col. 8, lines 1-9, sequence number field identified the specified packet from the stream of data packets]**.

Regarding claim 29, Ghodrat teaches a method of receiving flow control and retransmission information **[Abstract]** comprising: a. configuring a receiving plug on a transmitting device for receiving an isochronous back channel packet from a receiving device, wherein the isochronous back channel packet is received over an isochronous channel via the

receiving plug **[Col. 5, lines 33-39]**; b. receiving the isochronous back channel packet via the receiving plug **[Col. 6, lines 16-19]**; c. reading flow control and retransmission information included within the isochronous back channel packet wherein the flow control and retransmission information relates to a stream of isochronous data packets transmitted from the transmitting device to the receiving device and provides a control instruction to the transmitting device to regulate transmission of the stream of isochronous data packets **[Fig. 3, 210]**; and regulating transmission of the stream of isochronous data packets as determined by the control instruction, wherein the stream of isochronous data packets is transmitted in non real-time **[Fig. 3, 210, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**.

Regarding claim 30, Ghodrat teaches a method of configuring a plug to support an isochronous back channel **[Col. 5, lines 18-39]** comprising: a. embedding a back channel flow control information block within a plug configuration information block, wherein the back channel flow control information block is embedded within a non real-time plug transfer information block which is embedded within the plug configuration information block **[Col. 5, lines 33-41, IEEE 1394 is the plug and asynchronous communication is non real-time]**; b. defining a back channel information type within the back channel flow control information block, wherein the back channel information type indicates an isochronous back channel control mechanism for providing a flow control and retransmission control instruction **[Fig. 3]**; and c. setting an isochronous channel number field within the back channel flow control information block to indicate the isochronous channel used to send an isochronous back channel packet, wherein the isochronous back channel packet includes the control instruction which is used to regulate a transmission of a stream of isochronous data packets **[Col. 5, lines 51-67]**.

Regarding claim 50, Ghodrat teaches a method of performing retransmission and flow control **[Abstract]** comprising: a. configuring an isochronous channel between a transmitting device and a receiving device as an isochronous back channel for providing retransmission and flow control information from the receiving device to the transmitting device related to a stream of isochronous data packets transmitted from the transmitting device to the source device, wherein the stream of isochronous data packets is transmitted in non real-time **[Col. 5, lines 18-20, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**; b. monitoring the stream of isochronous data packets received at the receiving device for necessary retransmission or flow control **[Col. 6, lines 16-19]**; c. configuring an isochronous back channel packet for indicating a retransmission or flow control function to perform **[Fig. 3, 210]**; and d. transmitting the isochronous back channel packet from the receiving device to the transmitting device over the isochronous back channel **[Col. 7, lines 36-41]**.

Regarding claim 52, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. a configuring circuit to configure a plug to communicate an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. a packetizing circuit to packetize flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. a transceiver circuit configured to communicate the isochronous back channel packet via the plug **[Fig. 1, 25]**; d. a de-packetizing circuit to extract the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. a controller coupled to the configuring circuit, the packetizing circuit, the transceiver circuit, and the de-packetizing circuit to determine a control instruction and a stream of isochronous data packets to which the control

instruction is applied from the flow control and retransmission information and apply the control instruction to the determined stream of isochronous data packets, wherein the stream of isochronous data packets is transmitted in non real-time **[Col. 7, lines 65-67 – Col. 8, lines 1-9, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**.

Regarding claim 55, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. a configuring circuit to configure a plug to transmit an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. a packetizing circuit to packetize flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. a transceiver circuit configured to transmit the isochronous back channel packet via the plug, wherein the transceiver circuit is configured to transmit isochronous data packets in non real-time via the plug **[Fig. 1, 25, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**; d. a de-packetizing circuit to extract the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. a controller coupled to the configuring circuit, the packetizing circuit, the transceiver circuit, and the de-packetizing circuit to determine a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and apply the control instruction to the determined stream of isochronous data packets **[Col. 7, lines 65-67 – Col. 8, lines 1-9]**.

Regarding claim 56, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. a configuring circuit to configure a plug to receive an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. a packetizing circuit to packetize flow control and retransmission information within the

isochronous back channel packet **[Col. 5, lines 61-63]**; c. a transceiver circuit configured to receive the isochronous back channel packet via the plug, wherein the transceiver circuit is configured to receive isochronous data packets in non real-time via the plug **[Fig. 1, 25, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**; d. a de-packetizing circuit to extract the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. a controller coupled to the configuring circuit, the packetizing circuit, the transceiver circuit, and the de-packetizing circuit to determine a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and apply the control instruction to the determined stream of isochronous data packets **[Col. 7, lines 65-67 – Col. 8, lines 1-9]**.

Regarding claim 57, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. means for configuring a plug to communicate an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. means for packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. means for communicating the isochronous back channel packet via the plug **[Fig. 1, 25]**; d. means for extracting the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. means for controlling coupled to the means for configuring, the means for packetizing, the means for communicating, and the means for de-packetizing, wherein the means for controlling determines a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and applies the control instruction to the determined stream of isochronous data packets, wherein the stream of isochronous data

packets is transmitted in non real-time **[Col. 7, lines 65-67 – Col. 8, lines 1-9, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**.

Regarding claim 60, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. means for configuring a plug to transmit an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. means for packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. means for communicating the isochronous back channel packet via the plug, wherein the means for communicating is configured to transmit isochronous data packets in non real-time via the plug **[Fig. 1, 25, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**; d. means for extracting the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. means for controlling coupled to the means for configuring, the means for packetizing, the means for communicating, and the means for de-packetizing, wherein the means for controlling determines a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and applies the control instruction to the determined stream of isochronous data packets **[Col. 7, lines 65-67 – Col. 8, lines 1-9]**.

Regarding claim 61, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. means for configuring a plug to receive an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. means for packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. means for communicating the isochronous back channel

packet via the plug, wherein the means for communicating is configured to receive isochronous data packets in non real-time via the plug **[Fig. 1, 25, Col. 5, lines 40-41, asynchronous communication is done in non real-time]**; d. means for extracting the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. means for controlling coupled to the means for configuring, the means for packetizing, the means for communicating, and the means for de-packetizing, wherein the means for controlling determines a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and applies the control instruction to the determined stream of isochronous data packets **[Col. 7, lines 65-67 – Col. 8, lines 1-9]**.

Claim Rejections - 35 USC § 103

3. Claims 5, 51, 53, 54, 58, 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghodrat et al. (USPN 6,717,947) in view of Susai et al. (USPN 6,411,986).

Regarding claim 5, Ghodrat teaches a method of performing retransmission and flow control comprising **[Abstract]**: a. configuring a back channel between a transmitting device and a receiving device for providing retransmission and flow control information from the receiving device to the transmitting device related to a stream of isochronous data packets transmitted from the transmitting device to the source device **[Col. 5, lines 18-20]**; b. monitoring the stream of isochronous data packets received at the receiving device for necessary retransmission or flow control **[Col. 6, lines 16-19]**; and d. transmitting the back channel packet from the receiving device to the transmitting device over the back channel **[Col. 7, lines 36-41]**.

However, Ghodrat does not teach configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets.

Susai teaches configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets **[Col. 9, lines 5-12, sequence number specifies the specific packet from where to restart transmission]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to restart transmission from a specified packet so that transmission can be started after last successfully received packet **[Col. 5, lines 8-20]**.

Regarding claim 51, Ghodrat teaches a method of performing retransmission and flow control comprising **[Abstract]**: a. configuring an isochronous back channel between a transmitting device and a receiving device as an isochronous back channel for providing retransmission and flow control information from the receiving device to the transmitting device related to a stream of isochronous data packets transmitted from the transmitting device to the source device **[Col. 5, lines 18-20]**; b. monitoring the stream of isochronous data packets

received at the receiving device for necessary retransmission or flow control **[Col. 6, lines 16-19]**; c. configuring an isochronous back channel packet for indicating a retransmission or flow control function to perform **[Fig. 3, 210]**.

However, Ghodrat does not teach configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets.

Susai teaches configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets **[Col. 9, lines 5-12, sequence number specifies the specific packet from where to restart transmission]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to restart transmission from a specified packet so that transmission can be started after last successfully received packet **[Col. 5, lines 8-20]**.

Regarding claim 53, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. a configuring circuit to configure a plug to communicate an isochronous back channel packet over an isochronous back channel **[Col. 5,**

lines 33-39]; b. a packetizing circuit to packetize flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. a transceiver circuit configured to communicate the isochronous back channel packet via the plug **[Fig. 1, 25]**; d. a de-packetizing circuit to extract the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; e. a controller coupled to the configuring circuit, the packetizing circuit, the transceiver circuit, and the de-packetizing circuit to determine a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and apply the control instruction to the determined stream of isochronous data packets **[Fig. 1]**.

However, Ghodrat does not teach configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets.

Susai teaches configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets **[Col. 9, lines 5-12, sequence number specifies the specific packet from where to restart transmission]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to restart transmission from a specified packet so that transmission can be started after last successfully received packet **[Col. 5, lines 8-20]**.

Regarding claims 54, 59, Ghodrat teaches the isochronous back channel packet includes a control field that contains a value corresponding to the control instruction **[Col. 7, lines 36-41, retry packet contains the instruction]**.

Regarding claim 58, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. means for configuring a plug to communicate an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. means for packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. means for communicating the isochronous back channel packet via the plug **[Fig. 1, 25]**; d. means for extracting the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. means for controlling coupled to the means for configuring, the means for packetizing, the means for communicating, and the means for de-packetizing, wherein the means for controlling determines a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and applies the control instruction to the determined stream of isochronous data packets **[Fig. 1]**.

However, Ghodrat does not teach configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further

wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets.

Susai teaches configuring a back channel packet for indicating a retransmission or flow control function to perform, wherein the back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of data packets starting from a specified packet within the stream of data packets, and further wherein the back channel packet includes a dbc field that identifies the specific packet within the stream of data packets **[Col. 9, lines 5-12, sequence number specifies the specific packet from where to restart transmission]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to restart transmission from a specified packet so that transmission can be started after last successfully received packet **[Col. 5, lines 8-20]**.

4. Claims 7, 12-17, 19, 23, 24, 28, 32, 33, 38-42, 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghodrat et al. (USPN 6,717,947) in view of Dejanovic et al. (USPN 7,046,627).

Regarding claim 7, Ghodrat teaches a method of performing retransmission and flow control comprising **[Abstract]**: a. configuring a back channel between a transmitting device and a receiving device for providing retransmission and flow control information from the receiving device to the transmitting device related to a stream of isochronous data packets transmitted from the transmitting device to the source device **[Col. 5, lines 18-20]**; b. monitoring the stream of isochronous data packets received at the receiving device for necessary retransmission or flow

control **[Col. 6, lines 16-19]**; c. configuring a back channel packet for indicating a retransmission or flow control function to perform **[Fig. 3, 210]**; d. transmitting the back channel packet from the receiving device to the transmitting device over the back channel **[Col. 7, lines 36-41]**.

However, Ghodrat does not teach the back channel packet includes a control instruction that instructs the transmitting device to stop transmitting the stream of isochronous data packets.

Dejanovic teaches the back channel packet includes a control instruction that instructs the transmitting device to stop transmitting the stream of isochronous data packets **[Col. 9, lines 40-42, 58-64, lines 58-64 teach the control instruction is sent through back channel]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stop transmitting data packets if congestion occurs **[Col. 9, lines 40-42]**.

Regarding claim 12, Ghodrat teaches a method of performing retransmission and flow control comprising **[Abstract]**: a. configuring an isochronous back channel between a transmitting device and a receiving device as an isochronous back channel for providing retransmission and flow control information from the receiving device to the transmitting device related to a stream of isochronous data packets transmitted from the transmitting device to the source device **[Col. 5, lines 18-20]**; b. monitoring the stream of isochronous data packets received at the receiving device for necessary retransmission or flow control **[Col. 6, lines 16-19]**; c. configuring an isochronous back channel packet for indicating a retransmission or flow control function to perform **[Fig. 3, 210]**; d. transmitting the isochronous back channel packet from the receiving device to the transmitting device over the isochronous back channel **[Col. 7, lines 36-41]**.

However, Ghodrat does not teach the back channel packet includes a control instruction that instructs the transmitting device to stop transmitting the stream of isochronous data packets.

Dejanovic teaches the back channel packet includes a control instruction that instructs the transmitting device to stop transmitting the stream of isochronous data packets **[Col. 9, lines 40-42, 58-64, lines 58-64 teach the control instruction is sent through back channel]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stop transmitting data packets if congestion occurs **[Col. 9, lines 40-42]**.

Regarding claim 13, Ghodrat teaches configuring a transmitting plug on the receiving device for transmitting the isochronous back channel packet over the isochronous back channel and configuring a receiving plug on the transmitting device for receiving the isochronous back channel packet over the isochronous back channel **[Col. 5, lines 33-39, IEEE 1394 is isochronous bus where 40 is configured to bidirectional communication]**.

Regarding claims 14, 33, 42, Ghodrat teaches the stream of isochronous data packets is transmitted in non real-time **[Col. 5, lines 40-41, asynchronous communication is not done in real-time]**.

Regarding claim 15, Ghodrat teaches the isochronous back channel packet includes a control instruction that instructs the transmitting device to reset transmission of the stream of isochronous data packets starting from a specified packet within the stream of isochronous data packets **[Col. 7, lines 36-53, 65-67, – Col. 8, lines 1-9, sequence number field identified the specified packet from the stream of data packets]**.

Regarding claim 16, Ghodrat teaches the isochronous back channel packet includes a dbc field that identifies the specific packet within the stream of isochronous data packets **[Col. 7, lines 36-43, sequence number field identifies the packet]**.

Regarding claim 17, Ghodrat teaches the isochronous back channel packet includes a control field that contains a value corresponding to the control instruction **[Col. 7, lines 36-41, retry packet contains the instruction]**.

Regarding claims 19, 38, 47, Ghodrat teaches the stream of isochronous data packets include audio/visual content data **[Col. 2, lines 22-29, 38-39]**.

Regarding claim 23, Ghodrat teaches a method of transmitting flow control and retransmission information **[Abstract]** comprising: a. configuring a transmitting plug on a receiving device for transmitting an isochronous back channel packet over an isochronous channel via the transmitting plug to a transmitting device **[Col. 5, lines 33-39]**; b. determining flow control and retransmission information based on the status of a received isochronous data packet at the receiving device, wherein the received isochronous data packet is one of a stream of isochronous data packets transmitted from the transmitting device to the receiving device, **[Fig. 3, 210]**; c. packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; and d. transmitting the isochronous back channel packet from the receiving device over the isochronous back channel via the transmitting plug **[Col. 7, lines 36-41]**.

However, Ghodrat does not teach the status of the received isochronous data packet indicates the receiving device is not capable of receiving the stream of isochronous data packets and instructs the transmitting device to stop transmitting the stream of isochronous data packets.

Dejanovic teaches the status of the received isochronous data packet indicates the receiving device is not capable of receiving the stream of isochronous data packets and instructs the transmitting device to stop transmitting the stream of isochronous data packets **[Col. 9, lines 40-42, 58-64, lines 58-64 teach the received data packet indicates about receiving device]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stop transmitting data packets if congestion occurs **[Col. 9, lines 40-42]**.

Regarding claim 24, Ghodrat teaches a method of transmitting flow control and retransmission information **[Abstract]** comprising: a. configuring a transmitting plug on a receiving device for transmitting an isochronous back channel packet over an isochronous channel via the transmitting plug to a transmitting device **[Col. 5, lines 33-39]**; b. determining flow control and retransmission information based on the status of a received isochronous data packet at the receiving device, wherein the received isochronous data packet is one of a stream of isochronous data packets transmitted from the transmitting device to the receiving device **[Fig. 3, 210]**; c. packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; and d. transmitting the isochronous back channel packet from the receiving device over the isochronous back channel via the transmitting plug **[Col. 7, lines 36-41]**.

However, Ghodrat does not teach the status of the received isochronous data packet indicates that the receiving device is capable of resuming reception of the stream of isochronous data packets and instructs the transmitting device to restart transmission of the stream of isochronous data packets starting from a specified packet within the stream of isochronous data packets.

Dejanovic teaches the status of the received isochronous data packet indicates that the receiving device is capable of resuming reception of the stream of isochronous data packets and instructs the transmitting device to restart transmission of the stream of isochronous data packets starting from a specified packet within the stream of isochronous data packets **[Col. 13, lines 49-54]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to start from a specified a packet from the stream so that a view of traffic condition can be efficiently produced **[Col. 6, lines 13-20]**.

Regarding claim 28, Ghodrat teaches a method of receiving flow control and retransmission information **[Abstract]** comprising: a. configuring a receiving plug on a transmitting device for receiving an isochronous back channel packet from a receiving device, wherein the isochronous back channel packet is received over an isochronous channel via the receiving plug **[Col. 5, lines 33-39]**; b. receiving the isochronous back channel packet via the receiving plug **[Col. 6, lines 16-19]**; c. reading flow control and retransmission information included within the isochronous back channel packet wherein the flow control and retransmission information relates to a stream of isochronous data packets transmitted from the transmitting device to the receiving device and provides a control instruction to the transmitting device to regulate transmission of the stream of isochronous data packets **[Fig. 3, 210]**.

However, Ghodrat does not teach regulating transmission of the stream of isochronous data packets as determined by the control instruction, wherein the control instruction instructs the transmitting device to stop transmitting the stream of isochronous data packets.

Dejanovic teaches regulating transmission of the stream of isochronous data packets as determined by the control instruction, wherein the control instruction instructs the transmitting device to stop transmitting the stream of isochronous data packets **[Col. 9, lines 40-42, 58-64]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stop transmitting data packets if congestion occurs **[Col. 9, lines 40-42]**.

Regarding claim 32, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. a configuring circuit to configure a plug to communicate an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. a packetizing circuit to packetize flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. a transceiver circuit configured to communicate the isochronous back channel packet via the plug **[Fig. 1, 25]**; d. a de-packetizing circuit to extract the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. a controller coupled to the configuring circuit, the packetizing circuit, the transceiver circuit, and the de-packetizing circuit to determine a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and apply the control instruction to the determined stream of isochronous data packet **[Col. 7, lines 65-67 – Col. 8, lines 1-9]**.

However, Ghodrat does not teach the control instruction is an indication to stop transmitting the stream of isochronous data packets.

Dejanovic teaches the control instruction is an indication to stop transmitting the stream of isochronous data packets **[Col. 9, lines 40-42, 58-64]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stop transmitting data packets if congestion occurs **[Col. 9, lines 40-42]**.

Regarding claims 39, 40, 48, 49, Ghodrat teaches the transceiver circuit is configured to receive and transmit isochronous data packets in non real-time via the plug **[Fig. 1, 25 transmits and receives, Col. 5, lines 40-41, asynchronous communication is not done in real-time]**.

Regarding claim 41, Ghodrat teaches an apparatus for communicating flow control and retransmission information **[Fig. 1]** comprising: a. means for configuring a plug to communicate an isochronous back channel packet over an isochronous back channel **[Col. 5, lines 33-39]**; b. means for packetizing flow control and retransmission information within the isochronous back channel packet **[Col. 5, lines 61-63]**; c. means for communicating the isochronous back channel packet via the plug **[Fig. 1, 25]**; d. means for extracting the flow control and retransmission information from the isochronous back channel packet **[Col. 7, lines 43-49]**; and e. means for controlling coupled to the means for configuring, the means for packetizing, the means for communicating, and the means for de-packetizing, wherein the means for controlling determines a control instruction and a stream of isochronous data packets to which the control instruction is applied from the flow control and retransmission information and applies the control instruction to the determined stream of isochronous data packets **[Col. 7, lines 65-67 – Col. 8, lines 1-9]**.

However, Ghodrat does not teach the control instruction is an indication to stop transmitting the stream of isochronous data packets.

Dejanovic teaches the control instruction is an indication to stop transmitting the stream of isochronous data packets **[Col. 9, lines 40-42, 58-64]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stop transmitting data packets if congestion occurs **[Col. 9, lines 40-42]**.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrahas Patel whose telephone number is (571)270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2616

/Chandrahas Patel/
Examiner, Art Unit 2616